

### **REMARKS**

The Office Action mailed January 10, 2007, has been received and reviewed. Prior to the present communication, claim 1 was pending in the subject application. Claim 1 was rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 was also rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Further, claim 1 was rejected under 35 U.S.C. § 103 as being unpatentable over Geographic Variations in Utilization Rates in Veterans Affairs Hospitals and Clinics by Ashton (hereinafter the “Ashton reference”) in view of U.S. Patent Publication No. 2003/0018633 to Horn (hereinafter the “Horn reference”). Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

### **Amendments to the Specification**

It is stated in the Office Action that the disclosure of the present application is objected to because of various informalities. *See, Office Action*, at pp. 3-4. The Specification has been amended herein and, as currently amended, the Specification is believed to overcome the objections. Specifically, Applicants have removed the reference list from the disclosure and included the references in an IDS to be submitted along with the present response. Further, Applicants have clarified that only two variables are required from each locale.

In regard to the first objected-to equation, a new equation with the included parameter replaces the original equation. One of ordinary skill in the art would understand and appreciate that the shortening of the function argument on the right-hand side of the equation appears for brevity, defining what the `sign()` function is.

In regard to the second objected-to equation, a new equation with the included symbol replaces the original equation. Here, the missing symbol was an “not equal to” sign. As will be understood and appreciated by one of ordinary skill in the art, the expression simply illustrates that different hospitals (*i.e.*,  $t \neq s$ ) are statistically independent of one another for purposes of service volume and utilization. Stated differently, those of ordinary skill in the art understand and appreciate that, in practice, pairs or triples or higher-order combinations of institutions do not have the ability to significantly manipulate demand.

**Rejections based on 35 U.S.C. § 112**

Claim 1 was rejected under 35 U.S.C. § 112 ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended herein in response to each of the Examiner's objections and is now believed to be in appropriate form.

**Rejections based on 35 U.S.C. § 101**

The United States Supreme Court has recognized that the expansive language of 35 U.S.C. § 101 includes as statutory subject matter “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09 (1980). The USPTO has adopted the Supreme Court's interpretation and has stated that, in practice, the complete definition of the scope of 35 U.S.C. § 101 “is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent.” MPEP 2106(IV)(A). More specifically, the MPEP states that “computer programs are often recited as part of a claim.” MPEP 2106.01(I). In considering such claims, “USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory

irrespective of the fact that a computer program is included in the claim.” *Id.*; see also *In re Beauregard*, 53 F.3d 1582 (Fed. Cir. 1995). “The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program.” MPEP 2106.01(I).

As claimed here, claim 1 is directed to a computerized process where the computer executes instructions set forth in a computer program. Thus, claim 1 is directed to statutory subject matter, namely a process. Further, claim 1 is not directed to any judicial exception. To further illustrate this point, claim 1 has been amended to include a presenting step which presents a representation to a display in a computing environment. This tangible result occurring within a statutory process shows that claim 1 is indeed directed to statutory subject matter.

**Rejections based on 35 U.S.C. § 103(a)**

Title 35 U.S.C. § 103(a) declares, a patent shall not issue when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, or suggestion or motivation found either in the prior art references themselves or in the knowledge generally available to one

of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention. See, *Application of Bergel*, 292 F. 2d 955, 956-957 (1961). Thus, in order “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” See MPEP § 2143. Recently, the Supreme Court elaborated, at pages 13-14 of *KSR*, it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application].” *KSR v. Teleflex*, 127 S. Ct. 1727 (2007).

Claim 1 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Ashton reference in view of the Horn reference. As a *prima facie* case of obviousness has not been established for the claim, Applicant respectfully traverses this rejection as hereinafter set forth.

Independent claim 1, as currently amended, recites a method in a computing environment for effecting a controlled, recurring assessment of a care episode and service utilization patterns associated with a locale, the locale including a plurality of corresponding institutions, which comprises, in part, transforming distance values, the distance values measured in physical distance or elapsed time, *the physical distance or elapsed time measured from a*

*location at which inception of a clinical event occurred to a health facility in the catchment area where appropriate care is secured, and transforming population values, using a Box-Cox transform, for the locale where each care episode originates, the population values measured in persons or persons per square mile.*

By way of contrast, the Ashton reference discloses a study of geographic variation in the Department of Veterans Affairs hospitals. *See generally Ashton reference.* More specifically, the Ashton reference discloses an analysis of utilization variation among the 22 networks within the Department of Veterans Affairs. *See id.* Each of the 22 networks discussed in the Ashton reference is responsible for a large, typically multi-state, area within the United States. The Ashton reference, however, does not teach the distance value of the present invention. *See id.* As claimed in independent claim 1, the distance value is determined based upon measuring from the location at which inception of a clinical event occurred to a health facility where appropriate care was secured. As stated in the Specification, care episodes may begin when a person is at home, at work, or at other locations. *See Specification*, at pp. 4-5, ¶ [0014]. The Ashton reference does not teach risk-adjusting to correct for variations in distance from access to care. Indeed, the Ashton reference actually explains that it “did not examine the influence of other VA-related and non-VA-related supply factors, such as the distance to a VA facility from a patient’s home.” *See Ashton reference* at p. 36. Thus, the Ashton reference does not teach or suggest each of the limitations of currently amended independent claim 1. The addition of the Horn reference, which is directed to statistically computing reference intervals, does not cure the deficiencies of the Ashton reference. *See generally Horn reference.*

Further, the Ashton reference does not teach the population value of the present invention. As claimed in independent claim 1, the population value measures population density,

such as persons per square mile. As stated in the Specification, the distance value combined with the population value allows the present invention to effectively differentiate between different locations within a local area. *See Specification* at p. 6, ¶ [0017]. The Ashton reference fails to teach any population data at all, as defined by claim 1. Instead, the Ashton reference teaches focusing on variations among the 22 national Department of Veterans Administration networks, none of the networks including a local population density factor. Again, the addition of the statistically computed reference intervals disclosed in the Horn reference fails to cure the deficiencies in the Ashton reference. Accordingly, it is respectfully submitted that the Ashton and the Horn references, either alone or in combination, fail to teach or suggest each of the limitations of currently amended independent claim 1 under 35 U.S.C. § 103(a). Thus, withdrawal of the 35 U.S.C. § 103(a) rejection of this claim is respectfully requested.

### **CONCLUSION**

For at least the reasons stated above, and upon entry of the amendments included herein, claim 1 is believed to be in condition for allowance. As such, Applicants respectfully request withdrawal of the pending rejection and allowance of claim 1. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned by phone prior to issuing a subsequent action.

It is believed that no additional fee is due in conjunction with the present communication. However, if this belief is in error, the Commissioner is hereby authorized to charge any additional amount required to Deposit Account No. 19-2112, referencing attorney docket number CRNI.103792.

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Respectfully submitted,

/Abran J. Kean/

Abran J. Kean  
Reg. No. 58,540

AJKX  
SHOOK HARDY & BACON, LLP  
2555 Grand Blvd.  
Kansas City, Missouri 64108-2613  
(816) 474-6550